

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/859,501	SOEDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James A. Thompson	2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 27 September 2007.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets" ) must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948 ) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see pages 2-8, filed 27 September 2007, with respect to the rejections of the claims under 35 U.S.C. § 103(a) have been fully considered and are persuasive. The rejections of the claims under 35 U.S.C. § 103(a) have been withdrawn.

### *Allowable Subject Matter*

2. Claims 1-20 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1, 2, 11 and 12 each contain the recited features: (1) an empty transfer part which outputs an empty transfer level corresponding to black dummy pixels which are always shaded and are not used for reading an image; (2) a reference voltage varying part which varies the reference voltage of the A-D converter between a first reference voltage which is used for a background removal section function, and second and third reference voltages, one of which is selected when the background removal function is not used; and (3) a correcting part which corrects the black correction reference data, which is subtracted from the image data during the image input operation, by using a ratio between a first digital black level value obtained from an output voltage level of the empty transfer part when the black correction reference data is detected and a second digital black level value obtained from an output voltage level of the empty transfer part obtained when the image is read.

This combination of features allows for accurate black reference correction of image data when the reference voltage is variable, such as when there is an image read operation, a background removal operation, or an operation in which the reference levels from the reference patches are read. Since each of these operations, along with other possible operations, requires different reference voltages in order to maintain consistency and accuracy, the application of the above-mentioned features provides improved and more accurate results for image scanning and reproduction.

Examiner has not found the three above-mentioned features in the prior art, either in a single reference or in a properly-combinable set of references. The closest prior art discovered is the previously cited prior art combination, namely Orito (USPN 6,072,912), Yamamoto (USPN 4,841,376), and Nosaki (USPN 5,099,341). These references do not fully teach the above-mentioned features, particularly the reference voltage variation based on different modes and the correction of the black correction reference

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data using a ratio determined *via* the data obtained from the empty transfer part when the black correction reference data is detected and when the image is read. Thus, claims 1, 2, 11 and 12 are deemed allowable over the prior art. Claims 3-10 and 13-20 are deemed allowable at least owing to their respective dependencies.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James A. Thompson  
Examiner  
Technology Division 2625

JAT  
26 November 2007



**DAVID MOORE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**